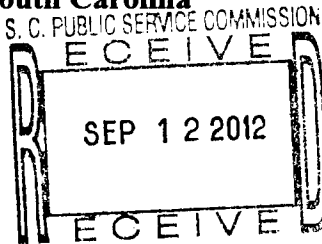


STATE OF SOUTH CAROLINA

(Caption of Case)

Petition of South Carolina Electric & Gas Company  
for Updates and Revisions to Schedules Related to  
the Construction of a Nuclear Base Load Generation  
Facility at Jenkinsville, South Carolina



BEFORE THE  
PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA

COVER SHEET

DOCKET

NUMBER: 2012 - 203 - E

(Please type or print)

Submitted by: Pamela Greenlaw

SC Bar Number: N.A.

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DOCKETING INFORMATION (Check all that apply)

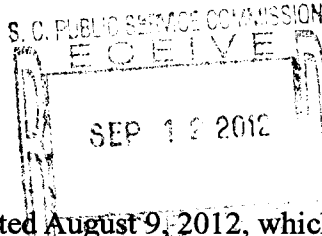
- ☐ Emergency Relief demanded in petition ☐ Request for item to be placed on Commission's Agenda expeditiously
- ☒ Other: Interrogatories; 2 questions not answered from 1<sup>st</sup> set of questions

INDUSTRY (Check one)	NATURE OF ACTION (Check all that apply)			
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Affidavit	<input checked="" type="checkbox"/> Letter	<input checked="" type="checkbox"/> Request	
<input type="checkbox"/> Electric/Gas	<input type="checkbox"/> Agreement	<input type="checkbox"/> Memorandum	<input type="checkbox"/> Request for Certificati	
<input type="checkbox"/> Electric/Telecommunications	<input type="checkbox"/> Answer	<input type="checkbox"/> Motion	<input type="checkbox"/> Request for Investigatio	
<input type="checkbox"/> Electric/Water	<input type="checkbox"/> Appellate Review	<input type="checkbox"/> Objection	<input type="checkbox"/> Resale Agreement	
<input type="checkbox"/> Electric/Water/Telecom.	<input type="checkbox"/> Application	<input type="checkbox"/> Petition	<input type="checkbox"/> Resale Amendment	
<input type="checkbox"/> Electric/Water/Sewer	<input type="checkbox"/> Brief	<input type="checkbox"/> Petition for Reconsideration	<input type="checkbox"/> Reservation Letter	
<input type="checkbox"/> Gas	<input type="checkbox"/> Certificate	<input type="checkbox"/> Petition for Rulemaking	<input type="checkbox"/> Response	
<input type="checkbox"/> Railroad	<input type="checkbox"/> Comments	<input type="checkbox"/> Petition for Rule to Show Cause	<input type="checkbox"/> Response to Discovery	
<input type="checkbox"/> Sewer	<input type="checkbox"/> Complaint	<input type="checkbox"/> Petition to Intervene	<input type="checkbox"/> Return to Petition	
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Consent Order	<input type="checkbox"/> Petition to Intervene Out of Time	<input type="checkbox"/> Stipulation	
<input type="checkbox"/> Transportation	<input checked="" type="checkbox"/> Discovery	<input type="checkbox"/> Prefiled Testimony	<input type="checkbox"/> Subpoena	
<input type="checkbox"/> Water	<input type="checkbox"/> Exhibit	<input type="checkbox"/> Promotion	<input type="checkbox"/> Tariff	
<input type="checkbox"/> Water/Sewer	<input type="checkbox"/> Expedited Consideration	<input type="checkbox"/> Proposed Order	<input type="checkbox"/> Other:	
<input type="checkbox"/> Administrative Matter	<input type="checkbox"/> Interconnection Agreement	<input type="checkbox"/> Protest		
<input type="checkbox"/> Other:	<input type="checkbox"/> Interconnection Amendment	<input type="checkbox"/> Publisher's Affidavit		
	<input type="checkbox"/> Late-Filed Exhibit	<input type="checkbox"/> Report		

September 7, 2012

Dear Honorable Jocelyn Boyd,

Please ask SCE&G to answer the questions below about Docket 2012-203-E on Costs and schedule changes before the hearing date of October 2 my Interrogatories for Discovery not answered satisfactorily from my first set by SCE&G



Sincerely,  
Pamela Greenlaw, Intervenor

**Introduction:** In my first set of Interrogatories dated August 9, 2012, which SCE&G answered on August 29, 2012, were a number of questions two\* of which SCE&G did not answer adequately, either because perhaps the question was not clear or the Company was not willing to answer.

These along with additional clarifying language are as follows:

Q. #4. What remains in the discovery phase of construction as of July 2012? To clarify, Mr. Byrne's statement in his testimony on p. 3, lines 13-14, "I believe we are now largely out of the discovery phase for the project" indicates 2 things: 1. his "belief" –he may need to check with someone who has thorough knowledge so the belief is replaced with actuality; and 2. "largely" does not mean completely. *(The original response from SCE&G was simply to repeat an explanation of what constitutes the discovery phase. The question was not answered.)*

\*Q. #18. What are the time lines, costs, materials, and locations of fabrications and assembly for the construction of hardened, above-ground dry cask storage units? What is/are the company(ies) contracted to do this work? *The company refused to answer this question. It is well within the limits of the issues already discussed in writing by the witnesses for this docket and is related to the Engineering piece of the EPC contracting. Waste containment construction is included in the BLRA revised Milestones, specifically, the spent fuel rack listed under tracking ID # 126. On top of all this, the original question does go to the heart of the discussion about unanticipated future costs of unanticipated difficulties and requirements. We begin to see cracks as time goes by in the insistence by the Company that nuclear energy is the least costly alternative source (Marsh's d.t., p. 6.). A lack of solutions to nuclear waste containment has caused the NRC to cease issuing any further COL's. This question should be answered.*

\*Q. #47, (background question 46 necessary to understand #47. "46. Concerning Shaw Modular Solutions module fabrication in Louisiana, SCE&G has had to closely monitor with a resident inspector on site due to a seeming lack of a culture of nuclear safety at SMS...")

Question #47: Concerning fabrication at other plants in the US and in other countries, to where else has the Company had to deploy in residence a monitor or monitoring team?

*Although the Company technically answered this question, they may have missed the spirit of the question because the question was most likely not well-crafted. So, the clarifying, next step question is "How does SCE&G physically provide oversight at the places of fabrication whether in the US or in other countries, and at what costs . . . flying, overnight accommodations, etc.?"*

I understand that because I did not actually complete this particular question for the Company to answer, I do not expect the PSC to compel the Company to answer it before the day of the hearing.

2<sup>nd</sup> set, (1.) Noted South Carolina economist Dr. Ron Wilder advised SCE&G that the proposed schedule for constructing the 2 new AP 1000's was overly ambitious and did not take into account the learning curve. To what degree did SCE&G incorporate Dr. Wilder's advice about the learning curve in revising the construction schedule?

2<sup>nd</sup> set, (2.) What guidelines did SCE&G use to devise their ambitious schedule?

2<sup>nd</sup> set, (3.)a. What was the original time line for building Unit 1 of the current nuclear plant in Jenkinsville and how does that compare time-line-wise to Unit 2?

b. Unit 3?

c. How many months longer than the original time line did it take to build and put on line Unit 1?

2<sup>nd</sup> set, (4.) What lessons have been learned from the time line of the AP1000 construction in China, and what has caused delays there?

2<sup>nd</sup> set, (5) On page 26 of his direct testimony, Mr. Marsh referred to SCE&G's commitments concerning its receptivity to alternative generation as a supplemental source of electricity. Mr. Byrne elucidates about cost competitiveness of alternatives.

a. Please describe SCE&G's alternative energy division or team.

b. Is there a division or team responsible for studying residential and commercial deployment of solar technology?

2<sup>nd</sup> set, (6) Is the sole source of the solar costs in Mr. Byrne's Rebuttal the thin film installation at Boeing? Also

a. How many houses could operate on a 2.6 MW facility back stood by gas in a distributed rather than centralized system?

b. Why is price of real estate included in the conversation about costs given that solar can be installed on rooftops, over existing parking lots, and other already-owned, available space?

2<sup>nd</sup> set, (7) Please list the training webinars, seminars, forums, teleconferences, physical conferences, and other such opportunities, for e.g. IREC Solar Conference in September 2012, to learn about devising and deploying solar energy in which SCE&G has participated since the BLRA proceeding in 2008. Please name the organizer organizations, the dates of the training, and what SCE&G learned and is incorporating into its IRP plan. (Topic is relevant given Mr. Cooper's Direct Testimony and Mr. Byrne's Rebuttal.

2<sup>nd</sup> set, (8.) Please list the training webinars, seminars, forums, teleconferences, physical conferences, and other such opportunities in which SCE&G has participated since the BLRA Proceeding in 2008 about devising and deploying ChP (combined heat and power.) Please name the organizer organizations, the dates of the training, and what SCE&G learned and is incorporating into its IRP plan.

2<sup>nd</sup> set (9.) How many MWHs or Kwhs per year are generated by the 150 customers in the PaCE program? How much money has this program saved or created for the Company? For the 150 participating customers? What are the goals and plans for this program going forward?

2<sup>nd</sup> set (10.) Concerning DSM (Demand Side Management) referred to on pp. 6 - 8 in Mr. Byrne's rebuttal testimony, Mr. David Pickles's testimony from Docket 2009-261-E is quoted in which he stated that SCE&G's

successful implementation of the selected programs over 3 years would result in savings of over 62 MW & 333,363 Mwh annually.

- a. This was his prediction, was it not?
- b. How well are the programs succeeding thus far according to the review by ORS & the DSM advisory group?
- c. What are the planned improvements and revisions to program design &/or implementation to ensure success? Are these included in the Integrated Resource Plan (IRP?)

2<sup>nd</sup> set, (11.) Which of the 9 chosen efficiency programs will be replaced or eliminated? Which expanded?

2<sup>nd</sup> set (12.) Please give the results of the Home Report Program in terms of kwh's and costs saved by consumers who participated.

- a. Please reveal the results of the telephone survey.
- b. Please indicate what the participants saved in Kwhs.
- c. What were the costs of this program to SCE&G?
- d. Will this program be revised, continued or is it complete?

2<sup>nd</sup> set (13.) Considering that weatherization has been a highly successful energy efficiency program under Santee Cooper and the corresponding electric coops, what are SCE&G's plans for incorporating and initiating employment of the same successful strategies that will make weatherization work for its customers? (Please do not include the past year's program unless revisions initiated will be a substantial improvement.)

2<sup>nd</sup> set (14.) On pp. 13-15 of his d.t. Mr. Marsh discusses conditions of the unanticipated 9 month delay of approval of the COL by the NRC. The following questions deal with his points:

- a. When Unit I of V.C. Summer was built, what were the causes of delay in receiving its license approval for construction?
- b. What were the construction causes of delay for completion of Unit I?
- c. How did both those delays change the operating costs of Unit I? What was the original cost projection and the final cost of Unit I?
- d. How did these lessons learned about Unit I play a part of the development of time lines (milestones) and cost projections for Units 2 and 3?

2<sup>nd</sup> set (15.) Why did SCE&G submit its application prematurely, i.e., before the NRC completed its reference plant COL application that provided the vehicle for NRC licensing of the standard AP 1000 configuration?" (Mr. Marsh's d.t., p. 13, line 8-10 and p. 14, lines 8-11)

2<sup>nd</sup> set (16.) Why did SCE&G submit its COL application to NRC prematurely, i.e., before the environmental report and wetlands permit applications were complete? Mr. Marsh's d.t., p. 13, lines 13-17 and p. 14, lines 8-11)

2<sup>nd</sup> set (17.) Referencing "delays," what is meant by the Company's having met its obligation to have the initial licensing and permitting issues resolved within the 18 month schedule contingency? For which of the permits and/or licenses does this mean actual acquisition of said permits and/or licenses? For which of these licenses are there other issues and how was each issue resolved?

Mr. Marsh's d.t., p. 16, lines 6 -10,

(2<sup>nd</sup> set, (18.) In the petition on p.8, #28, did SCE&G request a change proposal for the waste water piping for gravity drainage to the discharge system in the COL at the time of the BLRA hearing or at the time the COL application was made to the NRC? Was there an anticipated calculation made in advance of the actual estimation from Westinghouse/Toshiba/Shaw?

2<sup>nd</sup> set, (19.) In Mr. Marsh's d.t. he explained the cost schedule adjustments in the petition as well as updates that are evolving even now. In particular, on p. 8, lines 19-21 Mr. Marsh refers to new standards emerging in response to the recent Fukushima events.

How does the revised BLRA milestone time line make room for operational and anticipated changes aka, evolving requirements by NRC,( Byrne's rebuttal p. 9, line 5,) specifically

- a. the development, fabrication, and installation of hardened above-ground storage casks (a.k.a., HOS) for cooled spent fuel rods for long-term, on-site storage;
- b. the increase of armed security (from 5 to 10 minimum with required face-to-face attack and repel tactical practices and corresponding payroll, benefits, etc.);
- c. other?

2<sup>nd</sup> set, (20.) In Mr. Byrne's rebuttal testimony on pp. 5-6, he compares nuclear construction costs and solar construction costs for a comparable KW output extrapolating from EIA estimates of nuclear construction costs based on 2010 dollars.

a. Were SCE&G inclusions in its cost calculations for construction the same as what is included in EIA's estimates? If not, how do they differ?

b. Did SCE&G use data from EIA on solar cost construction estimation? What do these data show in terms of construction cost calculations?

c. Has SCE&G sought data on operational costs of nuclear and compared them with *operating* costs of solar installations/facilities? If so, what are the sources of the data and what do the generators of that data include and conclude?

2<sup>nd</sup> set, (21.) What sorts of support would be needed by SCE&G, be it from the General Assembly, ORS, the public, the DOE, and NRC to deploy sufficient solar to provide heating water in amounts to relieve the grid?

2<sup>nd</sup> set, (22.) What were the projected and final costs of Unit 1?